

**Notice of Allowability**

Application No.

09/819,789

Examiner

Phuong Phu

Applicant(s)

SRIDHARAN ET AL.

Art Unit

2631

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed on 1/14/05.
2. ☒ The allowed claim(s) is/are 1-20.
3. ☒ The drawings filed on 28 March 2001 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

### REASONS FOR ALLOWANCE

1. This Office Action is responsive to the Amendment filed on 1/14/05.
2. Claims 1-20 are allowed.
3. The following is an examiner's statement of reasons for allowance:

References (6366177), (6377784), (6411655) and (6255912) are additionally cited because they are pertinent to the claimed invention.

-Regarding to independent claim 1, none of prior art of record teaches or suggests the method as claimed. Either of Luu et al (6285255) and Schell et al (6751265) (previously cited) fail to teach the limitation "the modulated signal is provided through to a feedback circuit, the feedback circuit delaying the amplitude modulation in response to the modulated signal to synchronize the phase modulation and the amplitude modulation", in combinations with other limitations recited in the claim. It would not have been obvious for one skilled in the art to implement either of Luu et al and Schell et al in view of other prior art of record in order to lead such an implementation to the claimed invention.

-Regarding to independent claim 11, none of prior art of record teaches or suggests the method as claimed. Luu et al fails to teach the limitation "the phase or frequency modulations and amplitude modulations are coordinated in time by delaying the amplitude modulation in response to the signal.", in combinations with other limitations recited in the claim. It would not have been obvious for one skilled in the art to implement Luu et al in view of other prior art of record in order to lead such an implementation to the claimed invention.

-Regarding to independent claim 13, none of prior art of record teaches or suggests the method as claimed. Luu et al fails to teach the limitation "the delay circuit is calibrated by

providing the modulated signal having a desired characteristic, the desired characteristic being when the phase modulation is reversed and the amplitude modulation being simultaneously minimum; and detecting a delay between the phase modulation being reversed and the amplitude modulation being minimum”, in combinations with other limitations recited in the claim. It would not have been obvious for one skilled in the art to implement Luu et al in view of other prior art of record in order to lead such an implementation to the claimed invention.

-Regarding to independent claim 14, none of prior art of record teaches or suggests the system as claimed. Luu et al fails to teach the limitation “a delay circuit is disposed between the second data input and the amplitude modulator circuit, the delay circuit responding to a feedback signal associated with a modulated signal to coordinate the modulation in response to the first data and the modulation in response to the second data.”, in combinations with other limitations recited in the claim. It would not have been obvious for one skilled in the art to implement Luu et al in view of other prior art of record in order to lead such an implementation to the claimed invention.

-Regarding to independent claim 20, none of prior art of record teaches or suggests the system as claimed. Luu et al fails to teach the limitation “a phase detector/charge pump circuit coupled to the phase jump detector and the minimum detector, the phase detector/charge pump circuit providing a delay signal during calibration of the modulator”, in combinations with other limitations recited in the claim. It would not have been obvious for one skilled in the art to implement Luu et al in view of other prior art of record in order to lead such an implementation to the claimed invention.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuong Phu whose telephone number is 571-272-3009. The examiner can normally be reached on M-F (6:30-2:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad Ghayour can be reached on 571-272-3021. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*Phuong Phu*

Phuong Phu  
04/19/2005

**PHUONG PHU**  
**PRIMARY EXAMINER**

Phuong Phu  
Primary Examiner  
Art Unit 2631